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The Spider Genus *Achaearanea* (Araneae: Theridiidae) from Japan

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Abstract — Twelve species of the genus *Achaearanea* belonging to the family Theridiidae are recorded from Japan. A key and illustrations of the species are given. A new species, *A. ryukyu*, is described. *A. simulans* (Thorell 1875) is recorded from Japan for the first time. *A. ungilensis* Kim & Kim 1996 described from Korea is synonymized with *A. japonica* (Bösenberg & Strand 1906).

Key words — *Achaearanea*, Japan, key, new record, new species, new synonymy, Theridiidae

The name *Achaearanea* was proposed by Strand (1929) because the name *Achaea* was preoccupied. Bösenberg and Strand described the first Japanese species of the genus *Achaearanea* in 1906 as *Achaea asiatica*. After the revision of the genus *Achaearanea* made by Levi (1955), many species have been transferred to or described under this genus. Up to the present, more than 100 species of *Achaearanea* have been known from the world (Brignoli 1983; Platnick 1989, 1993, 1997), and ten have been recorded from Japan (Yoshida 1983, 1991). In two recent Japanese encyclopedias (Yaginuma 1986; Chikuni 1989), eight species of *Achaearanea* were dealt with.

In this paper, a new species of the genus *Achaearanea* is described and an European species, *A. simulans* (Thorell 1875), is recorded from Japan for the first time. Thus, a total of 12 species of this genus are recorded from Japan. The new species is closely allied to *A. culicivora* (Bösenberg & Strand 1906) described from Kyushu and *A. simulans*, which are redescribed in this paper. These three species and *A. tepidariorum* (C. Koch 1841) have often been misidentified with each other. A key and illustrations of all the Japanese species of this genus are also given.

The holotype and allotype of the new species are deposited in the collection of the Department of Zoology of National Science Museum, Tokyo. The paratypes are preserved in my private collection.

Abbreviations used in this paper are as follows: ALE, anterior lateral eye(s); AME, anterior median eye(s); HY, Hajime Yoshida leg.; MOA, median ocular area; NSMT-Ar, the Araneae Collection of the Department of Zoology of National Science Museum, Tokyo; PLE, posterior lateral eye(s); PME, posterior median eye(s); SMF, Senckenberg Museum Frankfurt am Main, Germany.

Achaearanea Strand 1929

Achaea O. Pickard-Cambridge 1882, p. 428. Type species: *Achaea insignis* O. Pickard-Cambridge 1882 [=*A. trapezoidalis* (Taczanowski 1873)]. The name of the genus was preoccupied by *Achaea* Huebner 1823 (Lepidoptera).

Achaearanea Strand 1929, p. 11. (This genus was named to replace *Achaea* O. Pickard-Cambridge 1882.); Levi 1955, p. 6; Levi & Levi 1962, p. 43.

Small to large-sized theridiid spiders (1–10 mm). Grayish brown to blackish brown in color, some are bright orange. Carapace slightly longer than wide. Legs of medium length, with spines and many hairs. First legs longest, second the next in male, fourth in female. Abdomen spherical, slightly longer than wide and high, sometimes higher than long. Colulus absent. Epigynum usually with a large depression, two openings situated anterior or lateral parts of it. Seminal receptacles are one pair. Male palpus with tegulum nearly spherical; median apophysis broadly attached to embolus with which it forms one sclerite; distal end of median apophysis catching in a hook of the cymbium; radix absent; embolus not so long, supported by the conductor.

Key to the Japanese species of *Achaearanea*

1a. Female ··· 2
1b. Male ··· 13
2a. Bright color, usually orange ··· 3
2b. Dark color, grayish brown to blackish brown ··· 5
3a. Abdomen with a dorsal median and a pair of posterior black spots ··· *asiatica* (Bösenberg & Strand 1906)
3b. Abdomen with a dorsal median and a pair of anterior black spots ··· 4
4a. Black spots usually large; connecting ducts of internal genitalia nearly straight (Fig. 12) ··· *japonica* (Bösenberg & Strand 1906)
4b. Black spots small surrounded with white pigments; connecting ducts S-shaped (Fig. 18) ··· *kompirensis* (Bösenberg & Strand 1906)
5a. Seminal receptacles of internal genitalia long and pear-shaped (Fig. 2) ··· *riparia* (Blackwall 1834)
5b. Seminal receptacles almost round ··· 6
6a. Connecting ducts thin, long and twisting (Fig. 5) ··· *ferrumequina* (Bösenberg & Strand 1906)
6b. Connecting ducts thick and not so long ··· 7
7a. Connecting ducts forming large additional seminal receptacles (Fig. 25) ··· *tabulata* Levi 1980
7b. Connecting ducts not forming additional seminal receptacles ··· 8
8a. Epigynum with distinct anterior edge of depression (Fig. 8); ducts short and straight (Fig. 9) ··· *oculiprominentis* (S. Saito 1939)
8b. Epigynum without distinct anterior edge of depression; duct curved ··· 9
9a. Abdomen with a hump on postero-dorsal part (Fig. 32) ··· *culicivora* (Bösenberg & Strand 1906)
9b. Abdomen without a hump ··· 10
10a. Abdomen nearly as long as high ··· 11
10b. Abdomen higher than long ··· 12
11a. Sternum yellowish brown, marginally dusky; abdomen blackish brown with transverse white pigments; body length less than 3 mm ··· *anglithorax* (Bösenberg & Strand 1906)
11b. Sternum yellowish brown with postero-median black flecks (Fig. 44); abdomen grayish brown with pairs of oblique white pigments; body length more than 3 mm ··· *ryukyu* new species
12a. Sternum yellowish brown with marginal black lines (Fig. 38); epigynum with posterior edge projecting (Fig. 39); ducts short (Fig. 40) ··· *simulans* (Thorell 1875)

12b. Sternum blackish brown without markings; epigynum with posterior edge not projecting; ducts long (Fig. 29) ······················ *tepidariorum* (C. Koch 1841)
13a. Conductor of palpus not extending beyond the tip of cymbium; embolus short and awl-shaped (Fig. 3) ·· *riparia* (Blackwall 1834)
13b. Conductor of palpus extending beyond the tip of cymbium; embolus rather long filiform ··· 14
14a. Conductor with a large dorsal projection (Figs. 35–36)································ ··· *anglithorax* (Bösenberg & Strand 1906)
14b. Conductor without large dorsal projection ··· 15
15a. Embolus thick and spiral (Fig. 10)················ *oculiprominentis* (S. Saito 1939)
15b. Embolus thin and curved ·· 16
16a. Conductor extending distally ·· 17
16b. Conductor extending laterally·· 18
17a. Blackish brown; conductor curved, the tip thin and sharp (Figs. 6–7) ··········· ··· *ferrumequina* (Bösenberg & Strand 1906)
17b. Bright orange; conductor rather thick and straight (Fig. 13)························ ··· *japonica* (Bösenberg & Strand 1906)
18a. Bright color, yellow to orange ··· 19
18b. Dark color, grayish brown to dark brown ··· 20
19a. Abdomen dorsally with large black marks on posterior half ······················ ··· *kompirensis* (Bösenberg & Strand 1906)
19b. Abdomen dorsally with three black spots on posterior half ························ ·· *asiatica* (Bösenberg & Strand 1906)
20a. Conductor swelling distinctly on apical part (Figs. 35–36) ························ ·· *culicivora* (Bösenberg & Strand 1906)
20b. Conductor not swelling on apical part ··· 21
21a. Tarsus of palpus nearly as long as wide (Fig. 26)·············· *tabulata* Levi 1980
21b. Tarsus of palpus much longer than wide ··· 22
22a. Sternum blackish brown without markings ········ *tepidariorum* (C. Koch 1841)
22b. Sternum yellowish brown with black markings ··································· 23
23a. Conductor much curved laterally; median apophysis long oval (Figs. 47–50); sternum with postero-median black flecks ······················· *ryukyu* new species
23b. Conductor extending relatively distally; median apophysis oblong (Figs. 41–42); sternum with marginal black lines ························· *simulans* (Thorell 1875)

Achaearanea riparia (Blackwall 1834)
(Figs. 1–3)

Theridium saxatile: Wiehle 1937, p. 160, figs. 101–106.
Theridion saxatile: Locket & Millidge 1953, p. 63, fig. 43–C, E.
Achaearanea riparia: Locket, Millidge & Merrett 1974, p. 51; Roberts 1985, p. 182, fig. 80–d; Yoshida 1983, p. 40; Matsuda 1988, p. 12, figs. 1–2; Ono et al. 1991, p. 84; Zhu 1998, p. 101, fig. 60.

Specimens examined. HOKKAIDO: 5 ♀, 3-VIII-1981, 1 ♂, 4-VIII-1981, Oshidomari, Rishiri-to Is., HY; 1 ♀, Kitousu, Rebun-to Is., 6-VIII-1981, HY; 1 ♀, Uchimichi, Rebun-to Is., 6-VIII-1981, HY.

Distribution. Japan: Hokkaido. China and Europe.

Remarks. Kishida (1959, p. 369) recorded *Theridion saxatile* from the Ryukyus, southwestern most islands in Japan, but it seems to be a misidentification. It was confirmed that the specimens collected from Hokkaido, northern most area in Japan,

belong to this species. Matsuda (1988) and Ono et al. (1991) also recorded this species from Hokkaido. Genital organs based on the Japanese specimens are illustrated in Figs. 1–3.

Achaearanea ferrumequina (Bösenberg & Strand 1906)
(Figs. 4–7)

Theridium ferrum-equinum Bösenberg & Strand 1906, p. 139, pl. 12, fig. 261 (syntypes: 5 ♀, 8 juveniles, from Saga, Dönitz leg., in SMF; not examined).
Theridium meum Bösenberg & Strand 1906, p. 145, pl. 12, fig. 294 (syntype: 1 ♀, from Saga ?, Dönitz leg., in SMF; not examined).
Theridion ferrumequinum: Saito 1941, p. 183, fig. 210; Oi 1957, p. 45, figs. 1–3; Saito 1959, p. 70, pl. 7, fig. 65, pl. 8, fig. 65; Yaginuma 1960, p. 36, pl. 9, fig. 53. text-fig. 34–5; Ono 1981, p. 2, fig. 1.
Theridion meum: Saito 1941, p. 186, fig. 216.
Achaearanea ferrumequina: Yoshida 1983, p. 40; Zhu 1998, p. 99, fig. 58.
Achaearanea ferrumequinum: Yaginuma 1986, p. 34, pl. 7, fig. 7, text-fig. 8; Chikuni 1989, p. 31, fig. 5.

Specimens examined. OSAKA PREF.: 5 ♀, 1-VI-1977, 1 ♀, 9-IV-1978, 3 ♀, 17-VI-1978, Mt. Iwawaki-san, HY. NARA PREF.: 1 ♀, Taira, Nosegawa-mura, 10-XII-1977, HY. SHIMANE PREF.: 4 ♀, 1 ♂ juvenile, Tomo, Mito-cho, 19-V-1993, Y. Ihara leg. HIROSHIMA PREF.: 1 ♀, Shiwahigashi, Higashihirosima-shi, 22-VIII-1988, Y. Ihara leg.; 25 ♀, 21-V-1993, 4 ♀, 27-V-1993, 2 ♀, 12-VII-1993, 9 ♀, 6 ♂, 23-V-1994, Ban, Numata-cho, Asaminami-ku, Hiroshima-shi, Y. Ihara leg. OITA PREF.: 2 ♀, Nakanosako, Aso, Innai-machi, 6-IX-1981, N. Kikuya leg.

Distribution. Japan: Honshu, Shikoku and Kyushu. Korea and China.

Remarks. In this species, conductor of male palpus has a pointed tip extending distally (Figs. 6–7). The shape of palpal organ is very different from those of the other Japanese species of this genus. Ono (1981) synonymized *Theridium meum* Bösenberg & Strand 1906 with this species. The specific name is a Latin (*ferrum*, iron; *equina*, of a horse) derived from the shape of epigynum (Fig. 4). Female internal genitalia is illustrated in Fig. 5: ducts thin and long.

Achaearanea oculiprominentis (S. Saito 1939)
(Figs. 8–10)

Nesticus oculiprominentis Saito 1939, p. 52, pl. 1, fig. 7, text-fig. 6–5 (syntype: 1 ♂ from Yokomichi-machi, Sakata-shi, Yamagata Prefecture, Japan, 18-VII-1935, K. Ota leg., depository unknown; probably lost); Saito 1941, p. 199, fig. 233; Saito 1959, p. 68, pl. 7, fig. 58, pl. 8, fig. 58.
Theridion sp.: Chikuni 1989, p. 43, fig. 62.
Achaearanea oculiprominentis: Yoshida 1991, p. 4, figs. 1–3; Zhu 1998, p. 95, fig. 55.

Female. Body length 2.42 mm to 4.00 mm. One specimen from Sendai-shi, Miyagi Prefecture: Body length 4.00 mm. Carapace length 1.11 mm; width 1.05 mm. Abdomen length 2.89 mm; width 2.63 mm; height 2.63 mm. First leg: femur 1.84 mm; patella and tibia 1.68 mm; metatarsus 1.63 mm; tarsus 0.68 mm. Second patella and tibia 1.16 mm; third patella and tibia 0.79 mm; fourth patella and tibia 1.32 mm.

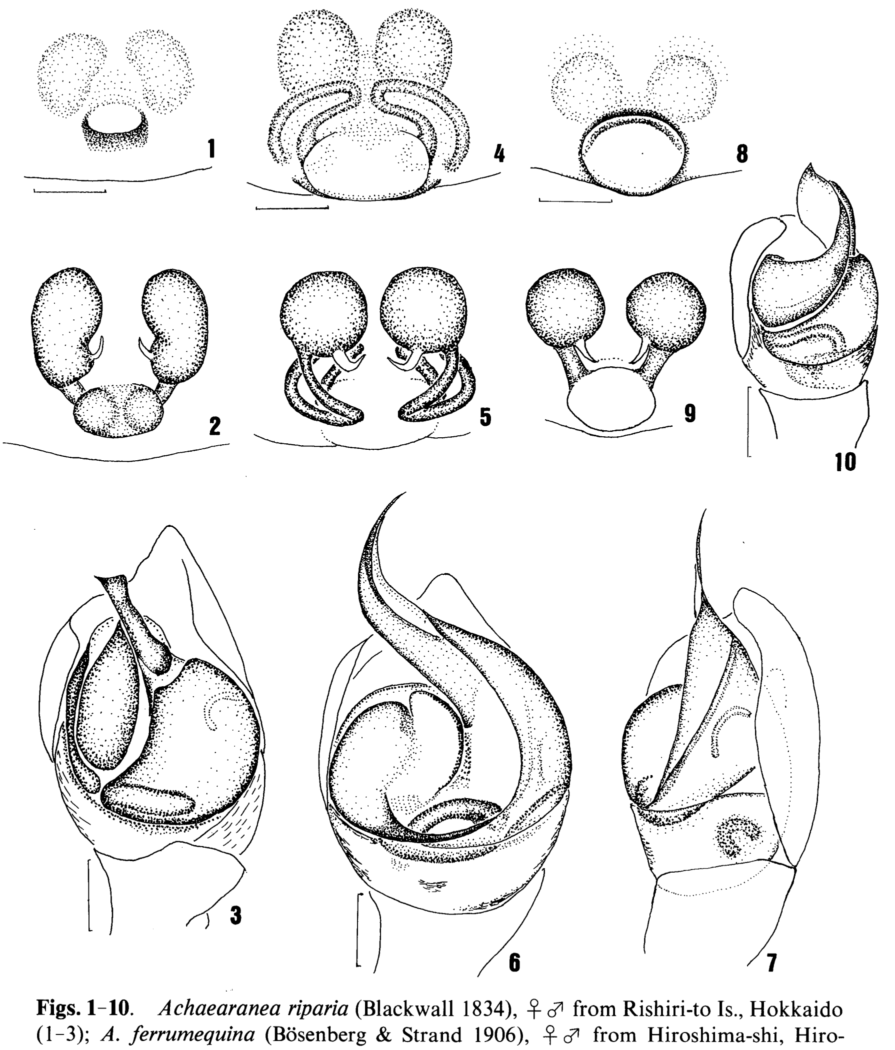
Diameters of ALE smaller than the others (6: 7). AME their diameter apart and one-seventh from ALE. PME six-sevenths their diameter apart and five-sevenths from PLE. MOA almost square. Abdomen longer than wide and high. Genital organ as shown in Figs. 8–9: epigynal depression nearly circular; ducts thick, short and straight.

Coloration. Carapace brown, marginally dark. Chelicerae, maxillae and labium dusky brown. Sternum brown. Legs brown with a wide black ring and narrow black

ring on distal part of fourth tibiae and fourth femora, respectively. Abdomen blackish brown with white pigments.

Male. Body length 2.37 mm to 2.68 mm. One specimen from Sakata-shi, Yamagata Prefecture: Body length 2.37 mm. Carapace length 1.05 mm; width 0.84 mm. Abdomen length 1.32 mm; width 1.16 mm; height 1.32 mm. First leg: femur 1.79 mm; patella and tibia 1.89 mm; metatarsus 1.63 mm; tarsus 0.63 mm. Second patella and tibia 1.21 mm; third patella and tibia 0.79 mm; fourth patella and tibia 1.11 mm.

Diameters of AME larger than the others (7: 6). AME their diameter apart and three-sevenths from ALE. PME seven-sixths their diameter apart and five-sixths from PLE. MOA, anterior width: posterior width: length = 10: 9: 8 in the ratio. Palpal



Figs. 1–10. *Achaearanea riparia* (Blackwall 1834), ♀♂ from Rishiri-to Is., Hokkaido (1–3); *A. ferrumequina* (Bösenberg & Strand 1906), ♀♂ from Hiroshima-shi, Hiroshima Pref. (4–7); and *A. oculiprominentis* (S. Saito 1939), ♀ from Sendai-shi, Miyagi Pref., and ♂ from Sakata-shi, Yamagata Pref. (8–10) —— 1, 4, 8, epigynum, ventral view; 2, 5, 9, female internal genitalia, dorsal view; 3, 6, 7, 10, male left palpus, ventral (3, 6, 10) and retrolateral (7) view. (Scales: 0.1 mm)

organ as shown in Fig. 10: embolus thick and twisted. Abdomen as long as high, blackish brown with a pair of median transverse white pigments.

Other characters as same as in the female.

Specimens examined. HOKKAIDO: 1 ♀, Wakasanai-kaigansakyu, Toyotomi-cho, 6-VIII-1985, N. Tsurusaki leg. MIYAGI PREF.: 1 ♀, 17-VII-1983, 1 ♀, 23-IX-1983, Hirosegawa, Sendai-shi, K. Sasaki leg. YAMAGATA PREF.: 1 ♂, Tobishima Is., Sakata-shi, 11-VIII-1991, HY (NSMT-Ar 4525). ISHIKAWA PREF.: 4 ♀, Saiden-cho, Kanazawa-shi, 30-VIII-1987, J. Taka leg. KANAGAWA PREF.: 1 ♀, Jonai High School, Odawara-shi, 27-VIII-1986, H. Ikeda leg.; 1 ♀, 1 ♂, Maioka-cho, Totsuka-ku, Yokohama-shi, 31-V-1986, A. Tanikawa leg. AICHI PREF.: 2 ♀, Hanazonocho, Toyota-shi, 2-VIII-1987, K. Ogata leg. OKAYAMA PREF.: 2 ♂, Saekibara, Saeki-cho, 20-IX-1995, K. Nojima leg.; 1 ♀, Aono, Aida-cho, 18-VIII-1987, K. Nojima leg.; 2 ♀, 6 ♂, Hachide, Tsuyama-shi, 23-V-1993, K. Nojima leg.

Distribution. Japan: Hokkaido, Honshu, Shikoku and Kyushu. China.

Remarks. This species was originally described under the genus *Nesticus*, and no additional record had been reported until the revision by Yoshida (1991).

Achaearanea japonica (Bösenberg & Strand 1906)
(Figs. 11–13)

Theridiun japonicum Bösenberg & Strand 1906, p. 140, pl. 12, fig. 383 (syntypes: ♀♂ from Yunohama, Saga, 29-V-1881, Dönitz leg., in SMF; not examined).

Theridion japonicum: Saito 1941, p. 185, fig. 214; Yaginuma 1960, p. 35, pl. 8, fig. 47.

Achaearanea japonica: Yoshida 1983, p. 41; Yaginuma 1986, p. 33, pl. 7, fig. 4, text-fig. 5; Chikuni 1989, p. 31, fig. 6; Zhu 1998, p. 89, fig. 51.

Achaearanea ungilensis Kim & Kim 1996, p. 28, figs. 1–6 (holotype: ♂ from Mt. Ungil-san, Namyangju, Kyunggi-do, Korea, VI-1996, B.-W. Kim leg., in the Arachnological Institute of Korea, Seoul; not examined). **New synonymy**.

Specimens examined. Japanese specimens: IWATE PREF.: 1 ♀, Tono-shi, 1-VIII-1971, HY. YAMAGATA PREF.: 2 ♀, 1 ♂, Mt. Sakazuki-yama, Yamagata-shi, 4-VII-1982, HY; 5 ♀, Nishi-zao, Yamagata-shi, 3-VIII-1976, HY; 2 ♂, Tobishima Is., Sakata-shi, 9-VIII-1972, HY. NIIGATA PREF.: 1 ♀, Awashima Island, 29-VII-1973, HY. TOYAMA PREF.: 1 ♀, Fuchu-cho, 16-VII-1975, staff of Kyoto-rinshi leg. NARA PREF.: 1 ♀, Shimosenbon, Mt. Yoshino-yama, 25-VIII-1981, N. Tsurusaki leg. WAKAYAMA PREF.: 3 ♀, Mt. Mitsuishi-san, Hashimoto-shi, 22-VIII-1976, HY. OSAKA PREF.: 2 ♀, Mt. Iwawaki-san, 18-X-1976, HY. OKINAWA PREF.: 1 ♀, Enobi, Okinawa-jima Island, 30-VI-1977, HY; 1 ♀, Yonehara, Ishigaki-jima Island, 1-VIII-1985, HY; 3 ♀, Mt. Omoto-dake, Ishigaki-jima, 2-VIII-1978, HY; 2 ♀, Tenda-bana, Yonaguni-jima Island, 31-VII-1985, HY. Chinese specimens: TAIWAN: 1 ♀, Mt. Yangming-shan, Taipei City, 28-VII-1977, M. Yoshimura leg.; 6 ♀, Wulai, Taipei County, 6-VII-1977, M. Yoshimura & HY; 1 ♀, Nanshanchi, Nantow County, 31-III-1979, HY; 1 ♀, 1 ♂, Chitou, Nantow County, 19-VII-1977, HY; 1 ♀, 13-VII-1977, 1 ♀, 15-VII-1977, Kenting, Pintung County, M. Yoshimura & HY; 2 ♀, 15-VII-1977, 1 ♀, 16-VII-1977, 2 ♀, 17-VII-1977, Chihpeng spa, Taitung County, M. Yoshimura & HY; 7 ♀, 14-VIII-1993, 4 ♀, 15-VIII-1993, Orchid Island, Taitung County, HY.

Distribution. Japan: Hokkaido, Honshu, Shikoku, Kyushu and the Ryukyus. Korea and China.

Remarks. Judging from the original description, I recognized that *A. ungilensis* Kim & Kim 1996 described from Korea is a synonym of this species. The description of *A. ungilensis* is based on only one male specimen, and the coloration and the structure of palpal organ are same as those of *A. japonica*. Genital organs are illustrated in Figs. 11–13.

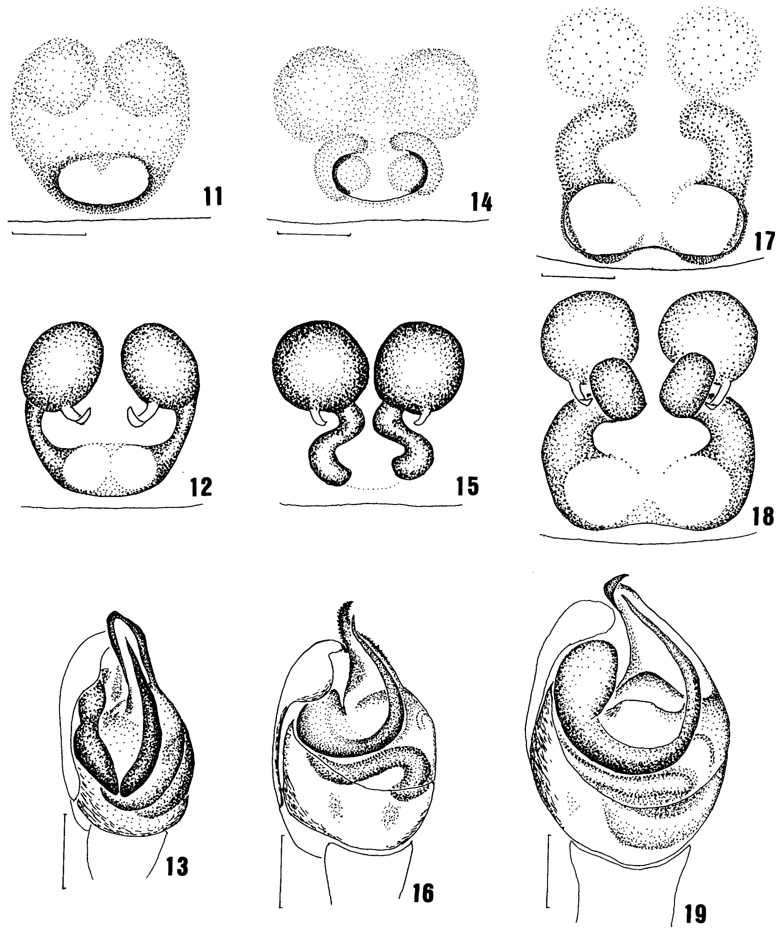
Achaearanea asiatica (Bösenberg & Strand 1906)

(Figs. 14–16)

Achaea asiatica Bösenberg & Strand 1906, p. 148, pl. 12, fig. 278; Saito 1941, p. 178, fig. 203 (syntypes: ♀♂ from Saga, Dönitz leg., in SMF; not examined).

Achaearanea asiatica: Matsumoto 1973, p. 9, figs. 1–7; Yoshida 1983, p. 41; Yaginuma 1986, p. 33, pl. 7, fig.6, text-fig. 7; Zhu 1998, p. 96, fig. 56.

Specimens examined. AOMORI PREF.: 4 ♀, Mt. Namidate-yama, Aomori-shi, 15-VII-1978, HY. YAMAGATA PREF.: 2 ♀, Mukaimachi, Mogami-machi, 29-VII-1982, HY; 1 ♂, Ohori, Mogami-machi, 6-VII-1982, HY; 1 ♂, 1 ♂ juvenile, 21-VII-1972, 4 ♀, 4-VII-1982, 1 ♀, 7 ♂, 11-VII-1982, 1 ♂



Figs. 11–19. *Achaearanea japonica* (Bösenberg & Strand 1906), ♀♂ from Yamagata-shi, Yamagata Pref. (11–14); *A. asiatica* (Bösenberg & Strand 1906), ♀♂ from Yamagata-shi, Yamagata Pref. (14–16); and *A. kompirensis* (Bösenberg & Strand 1906), ♀♂ from Mutsu-shi, Aomori Pref. (17–19) —— 11, 14, 17, epigynum, ventral view; 12, 15, 18, female internal genitalia, dorsal view; 13, 16, 19, male left palpus, ventral view. (Scales: 0.1 mm)

juvenile, 13-VI-1984, 3 ♀, 2 ♂, 2-VII-1984, Mt. Sakazuki-yama, Yamagata-shi, HY. AICHI PREF.: 1 ♀, Hirao-machi, Toyokawa-shi, 8-VII-1992, K. Ogata leg.

Distribution. Japan: Honshu, Shikoku and Kyushu. Korea and China.

Remarks. This species was described under the genus *Achaea* that is the old name of this genus. Genital organs are illustrated in Figs. 14–16.

Achaearanea kompirensis (Bösenberg & Strand 1906)

(Figs. 17–19)

Theridium kompirense Bösenberg & Strand 1906, p. 141, pl. 5, fig. 41, pl. 12, fig. 283 (syntypes: ♀ ♂ from Kompira, Saga, Dönitz leg., in SMF; not examined).

Theridion kompirense: Saito 1941, p. 186, fig. 215; Yaginuma 1960, p. 35, pl. 8, fig. 46.

Achaearanea kompirensis: Yoshida 1983, p. 41; Yaginuma 1986, p. 33, pl. 7, fig. 5, text-fig. 6; Chikuni 1989, p. 31, fig. 7; Zhu 1998, p. 109, fig. 66.

Specimens examined. AOMORI PREF.: 1 ♀, Mt. Namidate-yama, Aomori-shi, 15-VII-1978, HY; 1 ♀, 4 ♂, Ominato, Mutsu-shi, 17-VII-1978, HY. YAMAGATA PREF.: 1 ♀, Togo, Higashine-shi, 16-VIII-1986, HY; 1 ♂, Dorosawa, Otaki, Higashine-shi, 27-VII-1986, HY; 1 ♀, 1 ♂, Takinosawa, Magino, Higashine-shi, 27-VII-1986, HY; 1 ♀, 11-VII-1982, 1 ♀, 2 ♂, 2-VII-1984, 1 ♀, 6-VIII-1986, Mt. Sakazuki-yama, Yamagata-shi, HY. TOKYO PREF.: 1 ♂, Musashi-masudo, 15-VII-1993, M. Ban leg. AICHI PREF.: 1 ♀, 1 ♂, Mt. Horaiji-san, Horai-cho, 18-VII-1993, K. Ogata leg. OSAKA PREF.: 1 ♂, Mt. Iwawaki-san, 27-VI-1976, HY. HYOGO PREF.: 1 ♀, Oji, 31-VII-1966, H. Tanaka leg.

Distribution. Japan: Honshu, Shikoku and Kyushu. Korea and China.

Remarks. The specific name is derived from the type locality, which is the Kompira Shrine, Kinryu-cho, Saga-shi, Saga Prefecture. Genital organs are illustrated in Figs. 17–19.

Achaearanea angulithorax (Bösenberg & Strand 1906)

(Figs. 20–23)

Theridium angulithorax Bösenberg & Strand 1906, p. 144, pl. 12, fig. 292 (syntype: 1 ♀ from Saga, Dönitz leg., in SMF; not examined).

Theridion angulithorax: Saito 1941, p. 180, fig. 205; Saito 1959, p. 70, pl. 8, fig. 64; Yaginuma 1960, p. 36, pl. 9, fig. 52, text-fig. 34–6.

Achaearanea angulithorax: Yoshida 1983, p. 40; Yaginuma 1986, p. 33, pl. 7, fig. 2, text-fig. 2; Chikuni 1989, p. 30, fig. 4; Zhu 1998, p. 92, fig. 53.

Specimens examined. YAMAGATA PREF.: 1 ♀, 2 ♂, Ohori, Mogami-machi, 6-VII-1982, HY; 2 ♀, Ginzan-kaminohata, Obanazawa-shi, 12-VII-1986, HY; 6 ♀, Ginzan-onsen spa, Obanazawa-shi, 13-VII-1986, HY; 1 ♀, Tsuruko, Obanazawa-shi, 3-VIII-1986, HY; 2 ♀, Togo, Higashine-shi, 16-VIII-1986, HY; 1 ♂, Dorosawa, Otaki, Higashine-shi, 27-VII-1986, HY; 1 ♀, Mt. Sakazuki-yama, Yamagata-shi, 13-VI-1984, HY; 2 ♀, 23-VII-1978, 3 ♀, 18-VII-1982, Mt. Chitose-yama, Yamagata-shi, HY; 1 ♀, Nishi-zao, Yamagata-shi, 24-VII-1978, HY; 1 ♀, 3 ♂, Mt. Atsumi-dake, Atsumi-machi, 2-VII-1989, HY. NAGANO PREF.: 1 ♀, Todai, 16-VII-1975, H. Tanaka leg. AICHI PREF: 1 ♀, Suigen-machi, Toyota-shi, 2-VII-1986, K. Ogata leg. KYOTO PREF.: 1 ♀, Kitayama, 15-V-1969, H. Tanaka leg. WAKAYAMA PREF.: 1 ♀, Kainan-shi, 16-X-1977, HY. NARA PREF.: 3 ♀, Taira, Nosegawa-mura, 1-VI-1978, HY; 4 ♀, 4 ♂, Taki, Nosegawa-mura, 26-V-1979, HY; 1 ♂, Mt. Obako-dake, Nosegawa-mura, 2-VI-1978, HY. OSAKA PREF.: 1 ♂, 1-VI-1977, 2 ♀, 17-VI-1978, Mt. Iwawaki-san, HY. OITA PREF.: 3 ♀, 2 ♂, Kurotake, Asono, Shonai-machi, 3-VI-1981, N. Kikuya leg.

Distribution. Japan: Hokkaido, Honshu, Shikoku and Kyushu. Korea and China.

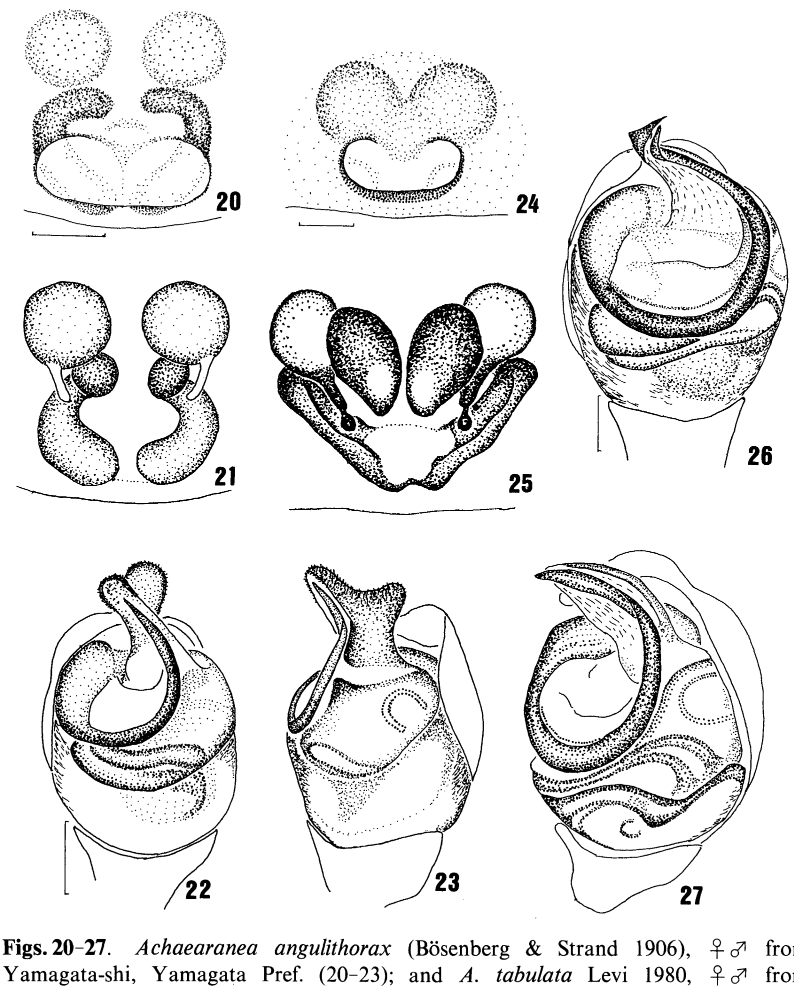
Remarks. The conductor of male palpus has a large dorsal projection. This character is distinctive among the Japanese species of this genus. Genital organs are

illustrated in Figs. 20–23.

Achaearanea tabulata Levi 1980
(Figs. 24–27)

Achaearanea tabulata Levi 1980, p. 334, fig. 1–2 (holotype: ♀ from Richmond Hill, Jamaica County, New York, USA, 25-VIII-1976, M. Considine leg., in the Museum of Comparative Zoology; not examined); Chikuni 1989, p. 30, fig. 3; Zhu 1998, p. 112, fig. 68.

Achaearanea nipponica Yoshida 1983, p. 37, figs. 1–5 [holotype (♀) and paratype I (♂) from Mt. Sakazuki-yama, Yamagata-shi, Yamagata Prefecture, Japan, 4-VII-1982, H. Yoshida leg., in the



Figs. 20–27. *Achaearanea angulithorax* (Bösenberg & Strand 1906), ♀♂ from Yamagata-shi, Yamagata Pref. (20–23); and *A. tabulata* Levi 1980, ♀♂ from Yamagata-shi, Yamagata Pref. (24–27) —— 20, 24, epigynum, ventral view; 21, 25, female internal genitalia, dorsal view; 22, 23, 26, 27, male left palpus, ventral (22, 26) and retrolateral (23, 27) view. (Scales: 0.1 mm)

Arachnological Society of Japan, Osaka, and other paratypes (many ♀♂) from Yamagata-shi, in private collection of H. Yoshida; examined]; Yaginuma 1986, p. 33, text-fig. 3.

Specimens examined. HOKKAIDO: 3 ♀, 3-VIII-1981, 4 ♀, 4-VIII-1981, Oshidomari, Rishiri-to Is., HY; 1 ♀, Kabuka, Rebun-to Is., 6-VIII-1981, HY. AOMORI PREF.: 2 ♀, Ichiyanagi, Rokkasho-mura, 16-VII-1978, HY. YAMAGATA PREF.: 4 ♀, Tashiro-toge, Mogami-machi, 27-VII-1982, HY; 4 ♀, 12-VII-1986, 3 ♀, 4-VII-1986, Ginzan, Obanazawa-shi, HY; 1 ♀, Tsuruko, Obanazawa-shi, 3-VIII-1986, HY; 1 ♀, 5-VII-1982, 1 ♂, 3-VIII-1983, 1 ♂, 13-VI-1984, Mt. Sakazuki-yama, Yamagata-shi, HY; 2 ♀, 1 ♂, Mamigasaki-gawara, Yamagata-shi, 13-VI-1984, HY; 1 ♀, Niiyama, Yamagata-shi, 13-VII-1978, HY; 6 ♀, 2 ♂, 11-VIII-1976, 1 ♀, 11-VIII-1976, 3 ♀, 24-VII-1978, Nishi-zao, Yamagata-shi, HY; 4 ♀, Zao-onsen spa, Yamagata-shi, 15-VII-1984, HY. NAGANO PREF.: 2 ♀, Misuzuko, Matsumoto-shi, 23-VIII-1992, HY. AICHI PREF.: 1 ♀, Zaigaji, Toyokawa-shi, 2-X-1993, K. Ogata leg. WAKAYAMA PREF.: 1 ♀, 2 ♂, Den, Misato-cho, 21-VIII-1993, K. Ogata leg. OITA PREF.: 3 ♀, 1 ♂, Odanoike, Yufuin, 14-VI-1981, N. Kikuya leg.

Distribution. Japan: Hokkaido, Honshu and Kyushu. Korea, China, Europe and North America.

Remarks. This species is originally described from North America, but is widely distributed in Europe and Asia. Genital organs based on the Japanese specimens are illustrated in Figs. 24–27.

Achaearanea tepidariorum (C. Koch 1841)
(Figs. 28–31)

Theridium tepidariorum: Wiehle 1937, p. 155, figs. 91–94; Bösenberg & Strand 1906, p. 148.
Theridion tepidariorum: Saito 1939, p. 48; Saito 1941, p. 192, fig. 226; Locket & Millidge 1953, p. 63, fig. 43-D, F; Saito 1959, p. 72, pl. 9, fig. 71, pl. 10, fig. 71; Yaginuma 1960, p. 35, pl. 8, fig. 45.
Achaearanea tepidariorum: Levi 1955, p. 32, figs. 69–70, 83–84; Locket, Millidge & Merrett 1974, p. 51, fig. 29-A; Roberts 1985, p. 182, fig. 81-a; Yoshida 1983, p. 40; Yaginuma 1986, p. 33, pl. 7, fig. 1, text-fig. 1; Chikuni 1989, p. 30, fig. 1; Zhu 1998, p. 105, fig. 63.

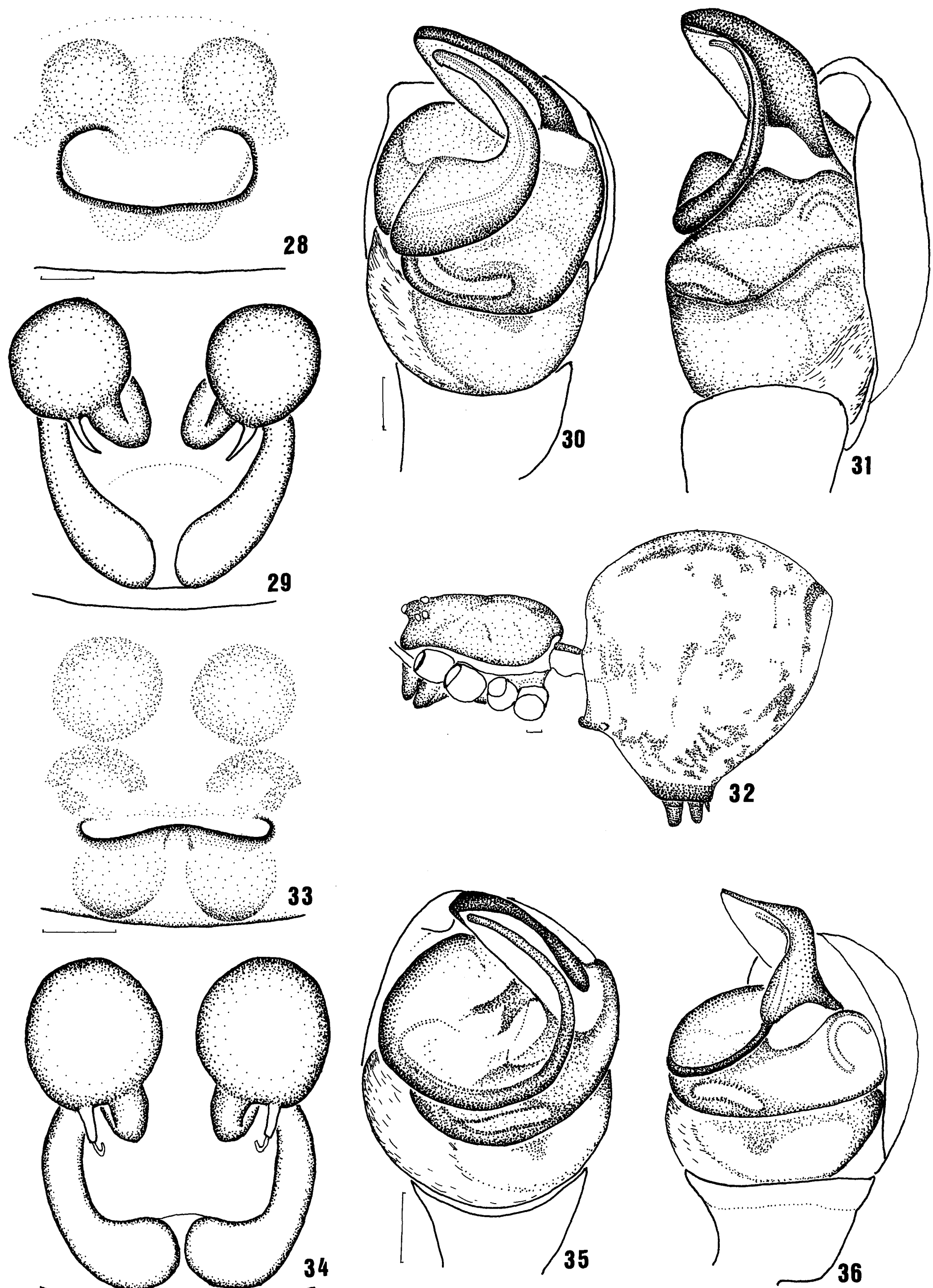
Distribution. Japan: Hokkaido, Honshu, Shikoku, Kyushu and the Ryukyus. Cosmopolitan.

Remarks. This species is domestic and is found in the house, the cabin and other artificial buildings. In spite of it, this species is sometimes found in the forest. I have not determined whether the spiders from different places are conspecific with each other or not. Many specimens were examined, but these data are excluded in this paper. Genital organs based on the Japanese specimens are illustrated in Figs. 28–31.

Achaearanea culicivora (Bösenberg & Strand 1906)
(Figs. 32–36)

Theridium culicivorum Bösenberg & Strand 1906, p. 143, pl. 12, fig. 287 (syntype: 1 ♂ from Saga ?, Dönitz leg., in SMF; not examined).
Theridion culicivorum: Saitò 1941, p. 181, fig. 208.
Theridion lunatum (misidentification): Yaginuma 1958, p. 10, fig. 1-A; Yaginuma 1960, p. 35, pl. 8, fig. 49.
Achaearanea culicivorum: Yoshida 1983, p. 40.
Achaearanea culicivora: Yaginuma 1986, p. 33, pl. 7, fig. 3, text-fig. 4.

Female. Body length 4.47 mm to 5.16 mm. One specimen from Oita-shi, Oita Prefecture: Body length 5.16 mm. Carapace length 1.89 mm; width 1.42 mm. Abdomen length 3.42 mm; width 3.11 mm; height 4.16 mm. First leg: femur 2.84 mm; patella



Figs. 28–36. *Achaearanea tepidariorum* (C. Koch 1841), ♀♂ from Yamagata-shi, Yamagata Pref. (28–31); and *A. culicivora* (Bösenberg & Strand 1906), ♀♂ from Oita-shi, Oita Pref. (32–36) —— 28, 33, epigynum, ventral view; 29, 34, female internal genitalia, dorsal view; 30, 31, 35, 36, male left palpus, ventral (30, 35) and retrolateral (31, 36) view; 32, female, lateral view. (Scales: 0.1 mm)

and tibia 2.74 mm; metatarsus 3.11 mm; tarsus 0.95 mm. Second patella and tibia 1.58 mm; third patella and tibia 1.21 mm; fourth patella and tibia 2.11 mm.

Diameters of AME: ALE: PME: PLE=9: 6: 7: 7 in the ratio. AME their diameter apart and four-ninths from ALE. PME ten-sevenths their diameter apart and six-sevenths from PLE. MOA, anterior width: posterior width: length=27: 25: 16 in the ratio. Abdomen higher than long, with a small hump on postero-dorsal part. Genital organ as shown in Figs. 33–34: posterior edge of epigynal depression much projecting.

Coloration. Carapace blackish brown. Chelicerae, maxillae and labium dusky brown. Sternum blackish brown. Legs brown with a longitudinal black line on each femur, a distal black ring on each distal part of femora and patellae, tibiae and metatarsi and each median part of tibiae and metatarsi. Abdomen grayish dusky brown with white spots and black flecks (Fig. 32). Spinnerets surrounded with a black ring.

Male. Body length 2.37 mm to 2.89 mm. One specimen from Oita-shi, Oita Prefecture: Body length 2.89 mm. Carapace length 1.37 mm; width 1.16 mm. Abdomen length 1.53 mm; width 1.26 mm; height 1.58 mm. First leg: femur 2.11 mm; patella and tibia 1.84 mm; metatarsus 2.11 mm; tarsus 0.74 mm. Second patella and tibia 1.26 mm; third patella and tibia 0.89 mm; fourth patella and tibia 1.26 mm.

Diameters of AME: ALE: PME: PLE=10: 6: 7: 7 in the ratio. AME seven-tenths their diameter apart and two-fifths from ALE. PME their diameter apart and six-sevenths from PLE. MOA, anterior width: posterior width: length=12: 11: 8 in the ratio. Palpal organ as shown in Figs. 35–36: conductor swelling on apical edge.

Specimens examined. KANAGAWA PREF.: 1 ♀, Shonandaira, Hiratsuka-shi, 30-IX-1984, A. Tanikawa leg.; 1 ♀, Iiyamakannon, Tanzawa, 27-II-1994, T. Sadamoto leg. AICHI PREF.: 1 ♀, Otaki-keikoku, Otakimachi, Toyota-shi, 27-VI-1992, K. Ogata leg.; 1 ♀, Kanda, Shigaraki-cho, 12-VIII-1991, K. Ogata leg. MIE PREF.: 1 ♀, Nunohiki, Kiwa-cho, 25-1997, T. Shiozaki leg.; 1 ♀, Jikidai, Iga-machi, 28-VII-1996, K. Kaihotsu leg. NARA PREF.: 1 ♀ juvenile, 26-V-1979, 1 ♀, 2-VI-1979, Taki, Totsugawa-mura, HY. WAKAYAMA PREF.: 1 ♀, 3 ♂, Kimi-toge, Hashimoto-shi, 17-VI-1978, HY. HIROSHIMA PREF.: 1 ♀, 1 ♀ juvenile, Ushidayama, Higashi-ku, Hiroshima-shi, 22-VI-1989, Y. Ihara leg. OITA PREF.: 2 ♀, 1 ♂, Shiomi, Oita-shi, 27-V-1981, N. Kikuya leg.

Distribution. Japan: Honshu (Kanagawa, Aichi, Mie, Wakayama and Hiroshima Prefectures) and Kyushu (Saga and Oita Prefectures).

Remarks. Yaginuma (1958) recorded *Theridion lunatum* from Hiroshima Prefecture, but it was a misidentification of this species. An European specimen of *Achaearanea lunata* (Clerck 1757) was examined (1 ♀, Taumus, Rhein-hessen, Germany, 7-VI-1979, W. Schawaller & H. Ono leg.). It was confirmed that *A. lunata* and this species are quite different. Chikuni (1989, p. 30, fig. 2) described this species, but the materials examined by him seem to be *Achaearanea ryukyu* new species. There are many records of *A. culicivora* (Bösenberg & Strand 1906) from Japan, but it is uncertain whether all the records are based on true *A. culicivora*. *A. songi* Zhu 1998 described from China is closely allied to this species.

Achaearanea simulans (Thorell 1875)

(Figs. 37–42)

Theridium tepidariorum simulans: Wiehle 1937, p. 57; Locket & Millidge 1953, p. 66.
Achaearanea simulans: Locket, Millidge & Merrett 1974, p. 52, fig. 29-B; Locket & Łuczak 1974, p. 267, figs. 1-B, 2-B.

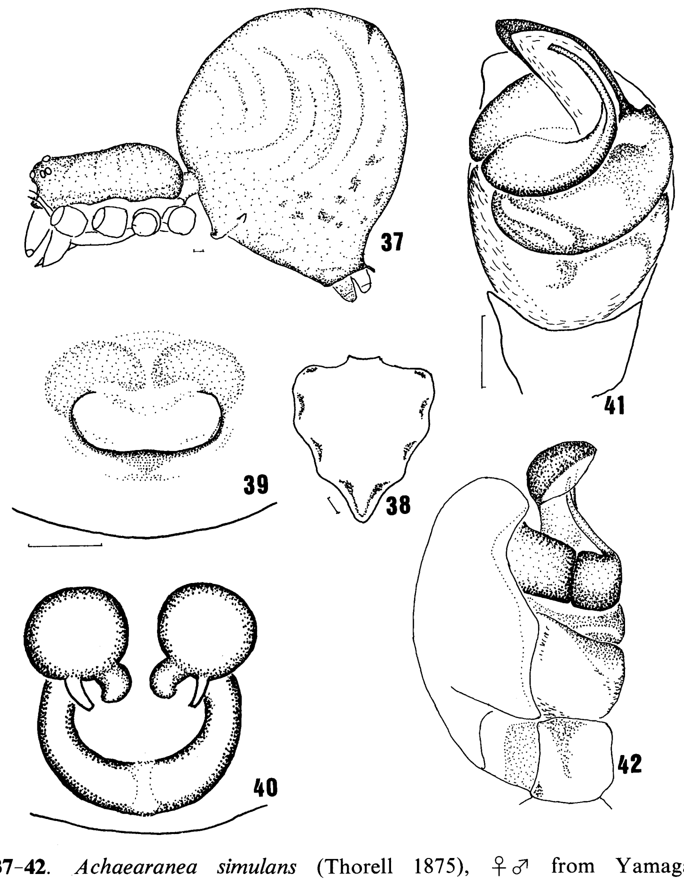
Female. Body length 3.68 mm to 5.79 mm. One specimen from Yamagata-shi, Yamagata Prefecture: Body length 4.21 mm. Carapace length 1.58 mm; width 1.32 mm.

Abdomen length 2.63 mm; width 2.37 mm; height 3.11 mm. First leg: femur 2.79 mm; patella and tibia 2.53 mm; metatarsus 2.84 mm; tarsus 0.95 mm. Second patella and tibia 1.58 mm; third patella and tibia 1.05 mm; fourth patella and tibia 1.84 mm.

Diameters of ALE smaller than the others (7: 8). AME seven-eighths their diameter apart and one-fourths from ALE. PME three-fourths their diameter apart and five-eighths from PLE. MOA, anterior width: posterior width: length = 23: 22: 21 in the ratio. Abdomen higher than long. Genital organ as shown in Figs. 39–40: posterior edge of epigynal depression projecting and rolled ventrally.

Coloration. Carapace blackish brown. Chelicerae, maxillae and labium dusky brown. Sternum yellowish brown with marginal black lines (Fig. 38). Legs yellowish brown with a black ring on each tibiae. Abdomen grayish dusky brown with small black flecks and many wide white spots which are distributed as water rings in lateral view (Fig. 37); a pair of dusky dorsal spots and a ventral line around spinnerets.

Male. Body length 2.47 mm to 3.37 mm. One specimen from Yamagata-shi, Yamagata Prefecture: Body length 2.63 mm. Carapace length 1.32 mm; width 1.11 mm. Abdomen length 1.37 mm; width 1.16 mm; height 1.26 mm. First leg: femur 2.32 mm;



Figs. 37–42. *Achaearanea simulans* (Thorell 1875), ♀♂ from Yamagata-shi, Yamagata Pref. —— 37, female, lateral view; 38, female sternum, ventral view; 39, epigynum, ventral view; 40, female internal genitalia, dorsal view; 41, 42, male left palpus, ventral (41) and prolateral (42) view. (Scales: 0.1 mm)

patella and tibia 2.37 mm; metatarsus 2.37 mm; tarsus 0.89 mm. Second patella and tibia 1.49 mm; third patella and tibia 0.95 mm; fourth patella and tibia 1.32 mm.

Diameters of AME: ALE: PME: PLE = 9: 5: 8: 7 in the ratio. AME eight-ninths their diameter apart and one-third from ALE. PME their diameter apart and five-eights from PLE. MOA, anterior width: posterior width: length = 23: 22: 16 in the ratio. Palpal organ as shown in Figs. 41–42: median apophysis oblong; embolus thin and long.

Other characters as same as in the female.

Specimens examined. European specimens: POLAND: 1 ♀, 1 ♂, Kampinos Forest, Near Warsaw, 1974, G. H. Locket leg. Japanese specimens: HOKKAIDO: 3 ♀, Oshidomari, Rishiri-to Is., 3-VIII-1981, HY; 1 ♀, 1 ♂, 4-VIII-1981, HY; 1 ♀, Hime-numa, Rishiri-to Is., 7-VIII-1985, N. Tsurusaki leg.; 1 ♀, Kabuka, Rebun-to Is., 6-VIII-1981, HY; 5 ♀, Kitousu, Rebun-to Is., 6-VIII-1981, HY. AOMORI PREF.: 1 ♀, Mt. Namidate-yama, Aomori-shi, 15-VII-1978, HY; 1 ♀, 1 ♀ juvenile, Ominato, Mutsu-shi, 17-VII-1978, HY; 2 ♀, 2 ♀ juveniles, Yaken, Shimokita Peninsula, 18-VII-1978, HY. MIYAGI PREF.: 1 ♀, 1 ♂, Rokkaku (Enshurin), Hanayama-mura, 5-VIII-1986, N. Yoshida leg. YAMAGATA PREF.: 1 ♀, Mukaimachi, Mogami-machi 29-VII-1981, HY; 1 ♀,Tashiro-toge, Mogami-machi, 14-VIII-1981, HY; 3 ♀, Tsuruko, Obanazawa-shi, 3-VIII-1986, HY; 2 ♀, Dorosawa, Otaki, Higashine-shi, 27-VII-1986, HY; 4 ♀, 1 ♂, 18-VII-1982, 1 ♀, 23-VII-1978, 4 ♀, 12-IX-1981, Mt. Chitose-yama, Yamagata-shi, HY; 2 ♀, Nishi-zao, Yamagata-shi, 3-VI-1976, HY; 1 ♀, 1 ♂, Mt. Takadate-yama Tsuruoka-shi, 28-VII-1990, HY. NAGANO PREF.: 1 ♀, Misuzuko 980 m alt, Matsumoto-shi, 29-VI-1984, N. Tsurusaki leg.; 1 ♀, 1 ♂, Susado, Horigane-mura, date missing, Y. Chikuni leg. TOYAMA PREF.: 1 ♂, Tateyama-machi, 16-VII-1975, staff of Kyoto-rinshi leg.

Distribution. Japan: Hokkaido and Honshu (Aomori, Miyagi, Yamagata, Nagano and Toyama Prefectures). Europe.

Remarks. This species has been recorded from Europe. I identified several specimens of *Achaearanea* from northern Japan as this species. I found no difference between European specimens and Japanese ones.

Achaearanea ryukyu new species

(Figs. 43–50)

Female (holotype). Body length 5.79 mm. Carapace length 1.63 mm; width 1.32 mm. Abdomen length 4.16 mm; width 3.68 mm; height 4. 05 mm. First leg: femur 2.79 mm; patella and tibia 2.79 mm; metatarsus 2.89 mm; tarsus 0.95 mm. Second patella and tibia 1.68 mm; third patella and tibia 1.21 mm; fourth patella and tibia 2.16 mm.

Carapace oval, with a circular thoracic groove; clypeus concave. Diameters of AME: ALE: PME: PLE = 10: 8: 9: 9. AME four-fifths their diameter apart and one-fifth from ALE. PME seven-ninths their diameter apart and from PLE. MOA, anterior width: posterior width: length = 22: 21: 24 in the ratio. Abdomen nearly as long as high. Genital organ as shown in Figs. 45–46: posterior edge of epigynal depression not projecting; ducts short.

Coloration. Carapace blackish brown. Chelicerae, maxillae and labium dusky brown. Sternum with median black flecks (Fig. 44). Legs yellowish brown with a black ring on each tibia, and metatarsi blackish in dark specimens. Abdomen grayish dusky brown with white spots and black flecks (Fig. 43); two pairs of dusky dorsal spots and a ventral line around spinnerets.

Male (allotype). Body length 2.79 mm. Carapace length 1.32 mm; width 1.05 mm. Abdomen length 1.53 mm; width 1.05 mm; height 1.63 mm. First leg: femur 2.37 mm; patella and tibia 2.42 mm; metatarsus 2.42 mm; tarsus 0.84 mm. Second patella and tibia 1.63 mm; third patella and tibia 1.00 mm; fourth patella and tibia 1.52 mm.

Diameters of AME slightly larger than the others (9: 8). AME seven-ninths their

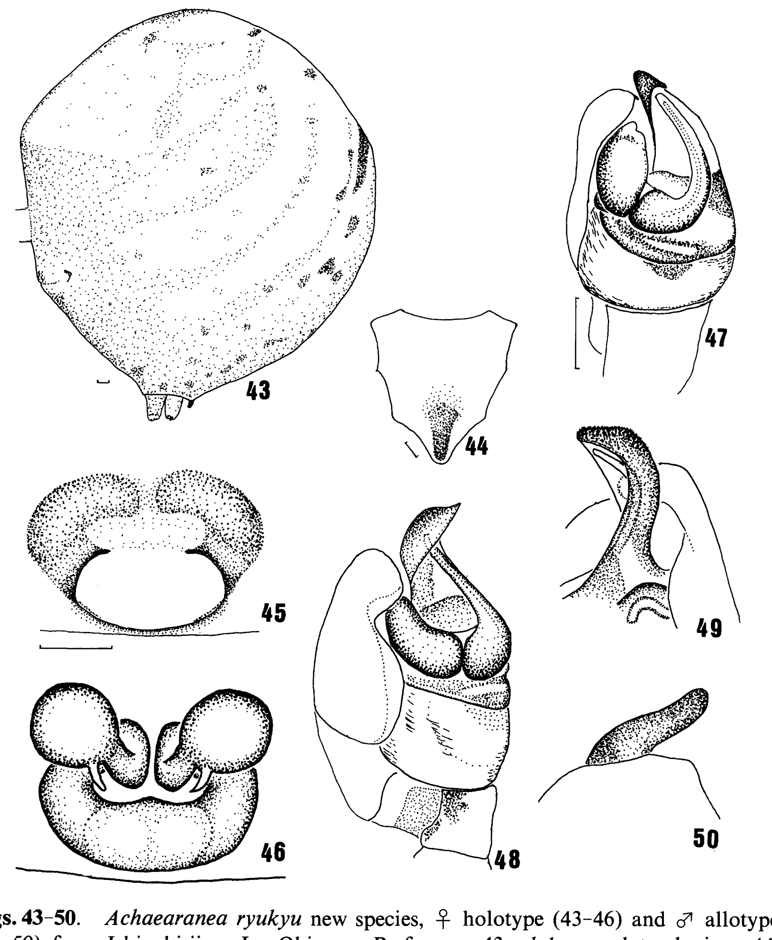
diameter apart and two-ninths from ALE. PME three-fourths their diameter apart and from PLE. MOA, anterior width: posterior width: length=23: 21: 23 in the ratio. Palpal organ as shown in Figs. 47-50: median apophysis long oval; embolus thin and long.

Other characters as same as in the female.

Variation. Female body length 3.74 mm to 5.79 mm. Male body length 2.37 mm to 3.00 mm.

Type series. Holotype (♀) and allotype (♂): Yonehara, Ishigaki-jima Is., Okinawa Pref., Japan, 1-VIII-1985, HY (NSMT-Ar 4526-4527). Paratypes: 11 ♀, 6 ♀ juveniles, 7 ♂, same data as for the holotype; 1 ♀, Mt. Banna-dake, Ishigaki-jima Is., 1-VIII-1978, HY; 1 ♀, Mt. Omoto-dake, Ishigaki-jima Is., 12-VII-1976, HY.

Other specimens examined. KANAGAWA PREF.: 1 ♀, 1 ♂, Miyanoshita, Hakone, 6-IX-1983, K. Kumada leg. ISHIKAWA PREF.: 1 ♂, Kashimanomori, Shioya-cho, Kaga-shi, 24-VI-1987, J.



Figs. 43-50. *Achaearanea ryukyu* new species, ♀ holotype (43-46) and ♂ allotype (47-50) from Ishigaki-jima Is., Okinawa Pref. —— 43, abdomen, lateral view; 44, sternum, ventral view; 45, epigynum, ventral view; 46, internal genitalia, dorsal view; 47-50, left palpus, ventral (47), prolateral (48), retrolateral (49) and dorsal (50) view (49-50, apical part). (Scales: 0.1 mm)

Taka leg. KAGOSHIMA PREF.: 1 ♀, 1 ♂, Shiroyama, Kagoshima-shi, 25-V-1971, H. Tanaka leg.; 1 ♀, Yui, Amami-oshima Is., 15-VIII-1978, HY; 1 ♀, Hetono, Tokunoshima Is., 12-VIII-1978, HY; 4 ♀, 2 ♀ juveniles, 2-VIII-1982, 3 ♀, 3-VIII-1982, Yoron-to Is., HY. OKINAWA PREF.: 1 ♀, 1 ♂, Oku, Okinawa-jima Is., 1-V-1997, A. Tanikawa leg.; 2 ♀, 2 ♂, Yona, Okinawa-jima Is., 26-VI-1997, T. Sasaki leg.; 2 ♀, 2 ♂, 30-VI-1977, 2 ♀, 8-VIII-1978, Enobi, Okinawa-jima Is., HY; 5 ♀, Mt. Nago-dake, Okinawa-jima Is., 5-VIII-1978, HY; 2 ♀, Hentona, Okinawa-jima Is., 15-VII-1976, HY; 2 ♀, Awa, Nago-shi, Okinawa-jima Is., 7-VIII-1978, HY; 2 ♀, Hyakuna, Okinawa-jima Is., 9-VIII-1978, HY; 1 ♀, Chibana, Okinawa-jima Is., 7-III-1977, HY; 2 ♀, Iheya-jima Is., 6-VIII-1982, HY; 1 ♀, Tokashiki-jima Is., 4-VIII-1982, HY; 2 ♀, Tenda-bana, Yonaguni-jima Is., 31-VII-1985, HY; 3 ♀, Sonai, Yonaguni-jima Is., 30-VII-1985, HY.

Distribution. Japan: Honshu (Kanagawa and Ishikawa Prefectures), Kyushu (Kagoshima Prefecture) and the Ryukyus (Amami-oshima, Tokunoshima, Yoron-to, Okinawa-jima, Iheya-jima, Tokashiki-jima, Ishigaki-jima and Yonaguni-jima Islands).

Remarks. The present new species resembles *Achaearanea simulans* (Thorell 1875), but is distinguished from the latter by having the yellowish brown sternum with a postero-median black fleck, the epigynal depression without a posterior projection, female genitalia with short ducts, and male palpus with long and oval median apophysis.

Most specimens examined were from the Ryukyus, but this species is also distributed in Honshu and Kyushu.

Etymology. The specific name is a noun in apposition after the Ryukyus.

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Acta Arachnologica, Vol. 49, No. 2 掲載論文の和文要旨

オオシロカネグモの捕食行動 (pp. 117-123)

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オオシロカネグモの捕食行動を調べた．この種は餌昆虫に対して，seize-pull out, bite-pull out, bite-wrap, wrap-bite および wrap の 5 つの捕食行動を示した．攻撃ラッピングはバッタ，イトトンボ，アリ，カメムシといった大型あるいは危険な餌に対して使用された．また，生きているアリは死んだアリよりも頻繁にラッピングで固定された．このことは，攻撃ラッピングが大型あるいは危険な餌の固定に効果的な方法であることを示唆している．

シロカネグモ属，*Mesida* 属および *Eriovixia* 属（クモ目：アシナガグモ科，コガネグモ科）の円網種 5 種の台湾からの新記録 (pp. 125-131)

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アシナガグモ科の *Leucauge argentina* (Hasselt 1882)，*L. tessellata* (Thorell 1887)，*Mesida gemmea* Hasselt 1882 の 3 種とコガネグモ科の *Eriovixia excelsa* (Simon 1889) とサキエダオニグモ *E. sakiedaorum* Tanikawa 1999 との 2 種，あわせて 5 種の円網種を台湾新記録種として報告した．このうちアシナガグモ科の *Mesida* 属については台湾新記録属となる．本論で扱った 5 種について形態的特徴を再記載し，図示し，これまでのシノニムと既知産地をまとめた．

日本産ヒラタヒメグモ属（クモ目：ヒメグモ科）の 1 新種 (pp. 133-135)

吉田　哉（〒990-2484 山形市篭田 2 丁目 7 番 16 号）

日本産のヒラタヒメグモ属の 1 新種，*Euryopis nigra* sp. nov.（クロヒラタヒメグモ，新称），を記載した．本属では日本産として合計 5 種になる．

日本産のツリガネヒメグモ属（クモ目：ヒメグモ科）のクモ (pp. 137-153)

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日本よりヒメグモ科ツリガネヒメグモ属のクモ 12 種を記録した．種の検索表および図を付すと共に，本州から琉球列島に分布する *Achaearanea ryukyu* new species（リュウキュウヒメグモ―新称―）を新種として記載し，ヨーロッパに広く分布する *A. simulans* (Thorell 1875)（ハモンヒメグモ―新称―）を新記録種として北海道，本州東北部から報告した．また，韓国から記載された *A. ungilensis* Kim & Kim 1996 を *A. japonica* (Bösenberg & Strand 1906) の新参シノニムとした．

日本産ヒノマルコモリグモ属（クモ目：コモリグモ科）の 1 新種 (pp. 155-157)

田中穂積（〒661-8520 兵庫県尼崎市南塚口町 7-29-1　園田学園女子大学短期大学部生物教室）

日本（北海道および本州中部）から得られたコモリグモ科ヒノマルコモリグモ属の 1 新種を *Tricca yasudai* ヤスダコモリグモ（新称）と命名し記載した．

日本産ケムリグモ属およびホソミトンビグモ属（クモ目：ワシグモ科）の 3 種 (pp. 159-164)

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日本産ワシグモ科の 3 種を報告した．北海道産の標本に基づいて，ケムリグモ属の 1 種を *Zelotes bifukaensis* sp. nov. ビフカケムリグモ（新称）と命名して記載した．また，長野県から得られた *Zelotes kimwha* Paik 1986 ミカドケムリグモ（新称）と沖縄県西表島から得られた *Aphantaulax seminigra* Simon 1878 ヒメトンビグモ（新称）を日本新記録種として報告した．